4298146

Access DB#

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: K C SRIVASTAVA Examiner #: 77964 Date: 05/14/2001

Art Unit: 1651 Phone Number 30 605-1196 Serial Number: 09/663,963

Mail Box and Bldg/Room Location: CM1/11E03 Results Format Preferred (circle): PAPER DISK E-MAIL

(1/1801)

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: IMPROVED FERMENTATION PROCESS

CLAIMS 1-12 ONLY PLEASE

Inventors (please provide full names): KEVIN W. ANDERSON & J. DOUGLAS WEST

Point of Contact: Beverly Shears
Technical Info. Specialist
CM1 12C14 Tel: 308-4994

Earliest Priority Filing Date: 09/30/1999

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

MEDIUM FOR ALIPHATIC CARBOXYLIC ACID
METAL: ALKALI, ALKALINE EARTH, TRANSITION & MIXTURES
BIOTIN WITHOUT BACTERIA
CARBON SOURCE OR GLUCOSE OR ENERGY SOURCE L1
INORGANIC NITROGEN SOURCE OR AMMONIUM SULFATE OR AMMONI,
OR AMMONIUM HYDROXIDE, L5
FRUCTOSE, MALTOSE, GLYCEROL,
SOURCE OF PHOSPHATE OR POTASSIUM PHOSPHATE OR SODIUM OR POTASSIUM PHOSP
OR AMMONIUM OR SODIUM OR
CALCIUM, MAGNESIUM, L9
ANTIFOAM AGENT OR BIOSURFACTANT
CHELATING AGENT OR EDTA OR CITRIC ACID L21
TRACE METAL OR MANGANESE OR MOLYBDENUM OR IRON, ZINC,
IRON, BORON,
DIACIDS,
FERMENTATION, NON-BIOLOGICAL
DODECANDIOIC ACID
BUTADIENE
RENEWABLE FEEDSTOCK(S)
YEAST BIOCATALYST
US PAT 6 004 784

CORN STEEP LIQUOR
YEAST EXTRACT
LOW-COST BIOFERMENTATION MEDIUM
POLYCARBOXYLIC ACID
POLYOL
POLYHYDROXY ACID
AMYLASE OR STARCH PRODUCT
OR STARCH PROCESSING ENZYME
OR DE-SYRUP

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Beverly 4994	NA Sequence (#)	STN ✓
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic	Dr.Link
Date Completed: 06-06-01	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 12	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: 52	Other	Other (specify)

PTO-1590 (1-2000)

Srivastava
09/663963

FILE 'REGISTRY' ENTERED AT 09:40:00 ON 06 JUN 2001

STRUCTURE FILE UPDATES: 4 JUN 2001 HIGHEST RN 339332-52-4
DICTIONARY FILE UPDATES: 4 JUN 2001 HIGHEST RN 339332-52-4

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

L1	2	SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOSE/CN
L2	10	SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM SULFATE ?/CN
L3	9	SEA FILE=REGISTRY ABB=ON PLU=ON (AMMONIA/CN OR "AMMONIA (15ND3)"/CN OR "AMMONIA (15NH3)"/CN OR "AMMONIA (D315N)"/CN OR "AMMONIA (ND2T)"/CN OR "AMMONIA (ND3)"/CN OR "AMMONIA (NDT2)"/CN OR "AMMONIA (NH2D)"/CN OR "AMMONIA (NH31+)"/CN OR "AMMONIA (T315N)"/CN)
L4	65	SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM HYDROXIDE ?/CN
L5	84	SEA FILE=REGISTRY ABB=ON PLU=ON L2 OR L3 OR L4
L6	69	SEA FILE=REGISTRY ABB=ON PLU=ON POTASSIUM PHOSPHATE ?/CN
L14	73	SEA FILE=REGISTRY ABB=ON PLU=ON SODIUM PHOSPHATE ?/CN
L15	23	SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM PHOSPHATE ?/CN
L16	165	SEA FILE=REGISTRY ABB=ON PLU=ON L6 OR L14 OR L15
L7	1	SEA FILE=REGISTRY ABB=ON PLU=ON CALCIUM/CN
L8	1	SEA FILE=REGISTRY ABB=ON PLU=ON MAGNESIUM/CN
L9	2	SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8
L19	2	SEA FILE=REGISTRY ABB=ON PLU=ON (EDTA/CN OR "EDTA (3-)"/CN OR "EDTA (CHELATING AGENT)"/CN)
L20	1	SEA FILE=REGISTRY ABB=ON PLU=ON "CITRIC ACID"/CN
L21	3	SEA FILE=REGISTRY ABB=ON PLU=ON L19 OR L20

Searcher : Shears 308-4994

(FILE 'CAPLUS' ENTERED AT 09:38:05 ON 06 JUN 2001)

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L1             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUCOSE/CN
L2            10 SEA FILE=REGISTRY ABB=ON  PLU=ON  AMMONIUM SULFATE ?/CN
L3             9 SEA FILE=REGISTRY ABB=ON  PLU=ON  (AMMONIA/CN OR
                  "AMMONIA (15ND3)"/CN OR "AMMONIA (15NH3)"/CN OR "AMMONIA
                  (D315N)"/CN OR "AMMONIA (ND2T)"/CN OR "AMMONIA (ND3)"/CN
                  OR "AMMONIA (NDT2)"/CN OR "AMMONIA (NH2D)"/CN OR
                  "AMMONIA (NH31+)"/CN OR "AMMONIA (T315N)"/CN)
L4            65 SEA FILE=REGISTRY ABB=ON  PLU=ON  AMMONIUM HYDROXIDE
                  ?/CN
L5            84 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 OR L3 OR L4
L6            69 SEA FILE=REGISTRY ABB=ON  PLU=ON  POTASSIUM PHOSPHATE
                  ?/CN
L7             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  CALCIUM/CN
L8             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MAGNESIUM/CN
L9             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L7 OR L8
L10        17025 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L1 OR GLUCOSE) AND (L5
                  OR (NH# OR AMMON?)(W)(SO## OR SULFATE OR SULPHATE OR OH
                  OR HYDROXIDE) OR NH!SO## OR NH!OH OR AMMON? OR NH#)
L14           73 SEA FILE=REGISTRY ABB=ON  PLU=ON  SODIUM PHOSPHATE ?/CN
L15           23 SEA FILE=REGISTRY ABB=ON  PLU=ON  AMMONIUM PHOSPHATE
                  ?/CN
L16          165 SEA FILE=REGISTRY ABB=ON  PLU=ON  L6 OR L14 OR L15
L19            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  (EDTA/CN OR "EDTA
                  (3-)"/CN OR "EDTA (CHELATING AGENT)"/CN)
L20            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "CITRIC ACID"/CN
L21            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 OR L20
L23          596 SEA FILE=CAPLUS ABB=ON  PLU=ON  L10 AND (L16 OR (K# OR
                  NA# OR SODIUM OR NH# OR AMMON? OR POTASSIUM)(W)(PHOSPHATE
                   OR PO###) OR K!PO### OR NA!PO### OR NH!PO###)
L24          145 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND (L9 OR CALCIUM
                  OR MAGNESIUM)
L25           35 SEA FILE=CAPLUS ABB=ON  PLU=ON  L24 AND (L21 OR EDTA OR
                  ETHYLENEDINITR? OR ETHYLENE(W)(DINITR? OR DI NITR?) OR
                  ETHYLENEDI NITR? OR CITRIC OR CHELAT? OR EDETIC)

L25  ANSWER 1 OF 35  CAPLUS  COPYRIGHT 2001 ACS
ACCESSION NUMBER:         2001:265628  CAPLUS
DOCUMENT NUMBER:          134:279678
TITLE:                    Improved fermentation process for the production
                          of polycarboxylic acids, polyols and polyhydroxy
                          acids
INVENTOR(S):              Anderson, Kevin W.; Wenzel, J. Douglas
PATENT ASSIGNEE(S):       Cognis Corporation, USA
SOURCE:                   PCT Int. Appl., 30 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
```

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025467	A1	20010412	WO 2000-US26174	20000922

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-156791 P 19990930
US 2000-663963 A 20000919

AB A fermn. medium contg.: (a) a source of metabolizable carbon and energy; (b) a source of inorg. nitrogen; (c) a source of phosphate; (d) at least one metal selected from the group consisting of an alkali metal, an alk. earth metal, a transition metal, and mixts. thereof; and (e) biotin, substantially free of particulate matter and bacteria. Thus, when Candida tropicalis was cultured at 35 .degree.C with the following medium: **glucose** 27 g/L, **ammonium sulfate** 7.0 g/L monobasic **potassium phosphate** 5.1 g/L, **magnesium** sulfate 0.5 g/L, **calcium** chloride 0.1 g/L, **citric** acid 0.06 g/L, ferric chloride 0.023 g/L, biotin, 0.002 g/L, boric acid, 0.0009 g/L, cupric sulfate 0.07 mg/L potassium iodide 0.18 mg/L, manganese sulfate 0.36 mg/l zinc sulfate 0.72 mg/L and SAG 471 antifoam 0.8 g/L. Once the culture was growing exponentially and a rise in the dissolved oxygen was noted, a feed of 94.4% tridecane mixed with 1.25% Emersol 267 and 1.25% Emery 2203 and 3.1% dodecane was started at a rate of 0.7g/L-h. Simultaneously the temp. was lowered to 30 .degree.C. A **glucose** feed of 1.58 g/l-h was begun when the biomass concn. reached ~ 10 g/L. After 50 h, 41.5 g/Kg 1,13=tridecanoic acid was produced.

IT **50-99-7**, Dextrose, biological studies **77-92-9**, **Citric** acid, biological studies **1336-21-6**, **Ammonium hydroxide 7664-41-7**, **Ammonia**, biological studies **7758-11-4** **7778-77-0**, MonoPotassium phosphate **7783-20-2**, **Ammonium sulfate**, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(improved fermn. process for the prodn. of polycarboxylic acids,

polyols and polyhydroxy acids)
REFERENCE COUNT: 5
REFERENCE(S): (1) Minagawa; US 5667996 A 1997 CAPLUS
(2) Neidleman; US 4567144 A 1986 CAPLUS
(3) Running; US 5900370 A 1999 CAPLUS
(4) Shirai; US 5618708 A 1997 CAPLUS
(5) Takigawa; US 5302522 A 1994 CAPLUS

L25 ANSWER 2 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:45246 CAPLUS
DOCUMENT NUMBER: 134:279633
TITLE: Optimization of conditions for submerged fermentation of neutral cellulase by Bacillus sp. Y106
AUTHOR(S): Chen, Shicheng; Qu, Yinbo; Zhang, Yan; Zhang, Ying; Gao, Peiji
CORPORATE SOURCE: State Key Laboraory of Mirobial Technology, Shandong University, Jinan, 250100, Peop. Rep. China
SOURCE: Yingyong Yu Huanjing Shengwu Xuebao (2000), 6(5), 457-461
CODEN: YYHXFX; ISSN: 1006-687X
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Bacterial strain Y106, a high extracellular neutral cellulase producer, was screened and identified as a Bacillus sp. The fermn. conditions in shake flasks were investigated. The highest level of cellulase activity was induced in a medium contg. wheat bran. Fructose was also an excellent inducer. The efficiency of org. nitrogen sources was better than that of inorg. nitrogen sources, while peptone was the best org. nitrogen source. Cellulase prodn. could be improved by Fe2+, Fe3+, Na+, and Ca2+, while inhibited by Cu2+, Ag+, Co2+, and Hg2+. The components of the medium were optimized by the method of RSA (Response Surface Anal.). When Y106 was cultured under the optimum conditions, cellulase prodn. could reach 4.57 IU mL-1.
IT **60-00-4**, **EDTa**, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BIOL (Biological study); PROC (Process)
(optimization of neutral cellulase fermn. by Bacillus sp. Y106)
IT **50-99-7**, Dextrose, biological studies **7722-76-1**, **Ammonium phosphate 7783-20-2**, **Ammonium sulfate**, biological studies **7783-28-0**, Diammonium phosphate
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(optimization of neutral cellulase fermn. by Bacillus sp. Y106)

L25 ANSWER 3 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:842023 CAPLUS
DOCUMENT NUMBER: 134:32962
TITLE: Ophthalmic solutions incorporating an antimicrobial polypeptide
INVENTOR(S): Tuse, Daniel; Mortelmans, Kristien; Hokama, Leslie A.; Selsted, Michael E.; Chapoy, Lawrence L.; Quinn, Michael H.
PATENT ASSIGNEE(S): Large Scale Biology Corporation, USA; SRI International; The Regents of the University of California; Wesley-Jessen Corporation
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000071175	A1	20001130	WO 2000-US14608	20000523

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-318195 A 19990525

AB This invention provides a novel antimicrobial system suitable for formulation in a wide variety of ophthalmic solns. In particular the compn. comprises an antimicrobial peptide that is an indolicidin and a buffer compatible with application to a mammalian eye, wherein the buffer is a Good's buffer or the buffer has a halide ion concn. less than 0.85 wt%. The compns. are useful for storing, cleaning, or disinfecting a contact lens. In particular the compns. are self-preserving upon lengthy storage, effective in cleaning and sterilizing contact lenses upon exposure of the lens to the compn., do not require the need for phys. or thermal treatment of the lens and enable the immediate application of the lens to the eye without the need for neutralization, deactivation or washing. For example, an indolicidin ophthalmic soln. was prepd. by dissolving 0.005 g of indolicidin in 10 mL distd. water, dilg. the soln. with a phosphate buffer to 100 mL, and adding 8.7 g of NaCl and 0.25 g of Poloxamer.

IT **50-99-7**, Dextrose, biological studies **60-00-4**,

Ethylenediaminetetraacetic acid, biological studies **77-92-9**
, biological studies **7558-79-4**, Disodium phosphate
7558-80-7, Monosodium phosphate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ophthalmic solns. contg. antimicrobial peptides for storage, cleaning, and disinfection of contact lenses)

REFERENCE COUNT: 5
REFERENCE(S):
(1) Allergan Inc; EP 0766970 A 1997 CAPLUS
(2) Hoya Lens Corp; EP 0095524 A 1983 CAPLUS
(3) Rupp, D; US 5696171 A 1997 CAPLUS
(4) Selsted, M; US 5547939 A 1996 CAPLUS
(5) Univ California; WO 9729765 A 1997 CAPLUS

L25 ANSWER 4 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:648986 CAPLUS
DOCUMENT NUMBER: 133:192118
TITLE: Method for producing high density PHB using fed-batch culture of recombinant Escherichia coli
INVENTOR(S): Lee, Sang-yeup; Jang, Ho-nam; Steinbuchel, Alexander
PATENT ASSIGNEE(S): Kaist, S. Korea
SOURCE: Repub. Korea, No pp. given
CODEN: KRXXFC
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 122437	B1	19971124	KR 1994-11070	19940520

AB The method includes the steps of culturing a PHB-producing recombinant E. coli in an initial culture composed of **glucose** and at least one nitrogen source selected from the group consisting of KH2PO4, (**NH4**)2HPO4, MGSO4,7H2O, **citric** acid, FeSO4.7H2O, CaCl2,2H2O, ZnSO4,7H2O, MnSO4.4H2O, CuSO4.5H2O, (**NH4**)6Mo7O24.4H2O, Na2B4O7.10H2O and thiamine, and tryptone, yeast ext., peptone, casamino acid, cotton seed hydrolyzate, beef ext., collagen hydrolyzate, corn steep liquor and soybean hydrolyzate; and supplying a substrate soln. for culture at pH 6.86-7.1.

IT **50-99-7**, D-**Glucose**, biological studies
77-92-9, **Citric** acid, biological studies
7778-77-0, **Potassium phosphate** (KH2PO4)
7783-28-0, **Ammonium** hydrogen phosphate ((**NH4**)2HPO4)
RL: BUU (Biological use, unclassified); BIOL (Biological study);

USES (Uses)
(method for producing high d. phb using fed-batch culture of recombinant Escherichia coli)

L25 ANSWER 5 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:381708 CAPLUS
DOCUMENT NUMBER: 133:2225
TITLE: Method and composition for controlling formaldehyde fixation by delayed quenching
INVENTOR(S): James, William M.; Hoag, Stephen W.
PATENT ASSIGNEE(S): Intergen Company, USA
SOURCE: U.S., 28 pp., Division of U.S. Ser. No. 824,708.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6072086	A	20000606	US 1999-377898	19990820
JP 2000509146	T2	20000718	JP 1997-537286	19970414

PRIORITY APPLN. INFO.: US 1996-631440 A2 19960412
US 1999-824708 A3 19990414
WO 1997-US6196 W 19970414

AB A method and compn. for quenching formaldehyde fixation of cell and tissue specimens. The compn. includes a formaldehyde-reactive agent. The formaldehyde-reactive agent reacts with the formaldehyde to quench the fixation of the cell or tissue specimen. The method involves contacting a formaldehyde fixative soln. with the compn.

IT **50-99-7**, Dextrose, biological studies **77-92-9**, biological studies **7722-76-1 7783-20-2**, **Ammonium sulfate**, biological studies **7783-28-0**, **Ammonium phosphate** dibasic
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(method and compn. for controlling formaldehyde fixation by delayed quenching)

REFERENCE COUNT: 61
REFERENCE(S):
(1) Anon; GB 1010773 1965 CAPLUS
(2) Anon; EP 0210540 B1 1991 CAPLUS
(3) Anon; WO 9407532 1994 CAPLUS
(4) Anon; JP 08337521 1995 CAPLUS
(8) Battifora; The Journal of Histochemistry and Cytochemistry 1986, V34(8), P1095 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 6 OF 35 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:197913 CAPLUS
DOCUMENT NUMBER: 132:233019
TITLE: Controlled-release agrochemical pesticide granules and their preparation
INVENTOR(S): Inoue, Masao; Tagami, Manabu
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000086404	A2	20000328	JP 1998-258226	19980911

AB The granules comprise (a) cores contg. active ingredients, fine powder supports, binders, and dispersed water-sol. solid substances having mol. wt. 50-700 and (b) coating layers. N-(1,1,3-trimethyl-2-oxa-4-indanyl)-5-chloro-1,3-dimethylpyrazole-4-carboxamide 4, hydrous SiO2 0.8, poly(vinyl alc.) 3, bentonite 20, Na dodecylbenzenesulfonate 2, CaCO3 powder 55.2, and aq. urea soln. 30 (urea 15 parts) parts were mixed and granulated to give cores, which was treated with a compn. comprising polymeric MDI 37.6, branched polyether polyol 33.2, linear polyether polyol 28.2, 2,4,6-tris(dimethylaminomethyl)phenol 1.0 wt.% to give granules, which took 51 days for 50% release of the pesticide.

IT **50-99-7**, **Glucose**, biological studies
77-92-9, **Citric** acid, biological studies
7320-34-5, Potassium pyrophosphate
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(in core; controlled-release agrochem. pesticide granules)

L25 ANSWER 7 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:98482 CAPLUS
DOCUMENT NUMBER: 132:155673
TITLE: Manufacture of gypsum-containing products having increased resistance to permanent deformation
INVENTOR(S): Yu, Qiang; Sucech, Steven W.; Groza, Brent E.; Mlinac, Raymond J.; Jones, Frederick T.; Boehnert, Frederick M.
PATENT ASSIGNEE(S): United States Gypsum Company, USA
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006518	A1	20000210	WO 1999-US1879	19990218
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 9908978	A1	19990225	WO 1998-US15874	19980730
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 9908979	A1	19990225	WO 1998-US17293	19980821
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9932856	A1	20000221	AU 1999-32856	19990218
NO 2001000518	A	20010327	NO 2001-518	20010130

PRIORITY APPLN. INFO.:			
	WO 1998-US15874	W	19980730
	US 1998-138355	A	19980821
	WO 1998-US17293	W	19980821
	US 1999-249814	A	19990216
	US 1997-916058	A	19970821
	WO 1999-US1879	W	19990218

AB Manuf. of gypsum-contg. products comprises (1) forming a mixt. of a **calcium** sulfate material, water, and 0.004-2.0 wt.% (based on the **calcium** sulfate material) of .gtoreq.1 enhancing materials chosen from condensed phosphoric acids, each of which comprises 2 or more phosphoric acid units; and salts or ions of condensed phosphates, each of which comprises 2 or more phosphate units, (2) maintaining the mixt. under conditions sufficient for the

calcium sulfate material to form an interlocking matrix of set gypsum, and (3) adding a setting agent and another portion of enhancing materials. The **calcium** sulfate materials comprise .gtoreq.1 of anhydrite or hemihydrite of **calcium** sulfate, or ions of **calcium** and sulfate. The enhancing agents are selected from .gtoreq.1 of pyro-, meta-, and polyphosphates, such as sodium polyphosphate, tetrapotassium pyrophosphate, sodium trimetaphosphate, etc., or polyphosphoric acid. The mixts. of a **calcium** sulfate material may comprise also a pregelatinized starch 0.08-0.5, chlorides 0.02-1.5 wt.% based on **calcium** sulfate material, and further, aq. foaming, defoaming, setting, and wetting agents. A sag-resistant flat or shaped gypsum boards comprise a core of the foamed interlocking matrix of set gypsum sandwiched between paper cover sheets. In one embodiment, the boards have sag <0.1 in. per two foot length, and nail pull resistance is 155-176 lbs per 1000 ft2. The resulting materials are also suitable for reinforced gypsum composite boards, plasters, machinable materials, joint treatment materials, and acoustical tiles.

IT **32612-48-9**, Witcolate 1276
RL: MOA (Modifier or additive use); USES (Uses)
(foaming agent; manuf. of gypsum-contg. products having increased resistance to permanent deformation)

IT **7320-34-5**, Tetrapotassium pyrophosphate **7558-79-4**, Disodium monohydrogen phosphate **7558-80-7** **7601-54-9**, Trisodium phosphate **7722-88-5**, Tetrasodium pyrophosphate **7758-29-4**, Sodium tripolyphosphate **7778-77-0**, Monopotassium dihydrogen phosphate **7785-84-4**, Sodium trimetaphosphate
RL: MOA (Modifier or additive use); USES (Uses)
(manuf. of gypsum-contg. products having increased resistance to permanent deformation)

IT **50-99-7**, Cerelose 2001, uses
RL: MOA (Modifier or additive use); USES (Uses)
(recalcination inhibitor; manuf. of gypsum-contg. products having increased resistance to permanent deformation)

REFERENCE COUNT: 6
REFERENCE(S):
(1) Edward, B; US 3920465 A 1975 CAPLUS
(2) Hoechst Ag; EP 0001591 A 1979 CAPLUS
(3) Richard, R; US 4183908 A 1980 CAPLUS
(4) Robert, M; US 4054461 A 1977 CAPLUS
(5) Taki Kagaku Kk; JP 54-096525 A 1979 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 8 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:761805 CAPLUS
DOCUMENT NUMBER: 131:335920
TITLE: Culture medium for producing fatty acid rich

mycelium by fermentation method
INVENTOR(S): Yu, Shanming
PATENT ASSIGNEE(S): Sanming Bioengineering Co., Ltd., Beijing, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1157850	A	19970827	CN 1995-119307	19951130

AB The culture medium useful for manufg. .gamma.-linolenic acid-rich fatty acids with Mortierella is including slant medium, semen medium, and fermn. The slant medium is composed of potato 20-30, agar 1.5-2, and **glucose** 2-3%. The semen medium is composed of **glucose** 6-8, urea 0.5-1,2SO4 0.5-1, malt juice 0.1, yeast ext. 0.05-0.1, KH2PO4 0.1-0.2, trisodium citrate 0.4-0.6%, and MgSO4 0.04- 0.08 mg/L. The fermn. medium is composed of **glucose** 8-10, KH2PO4 0.2-0.3, NH4NO3 0.2-0.3, MgSO4 0.03-0.05, yeast ext. 0.03-0.05, CuSO4 0.4-0.8, trisodium citrate 1.0-1.2, **citric** acid 0.3-0.6%, FeSO4 10-30, CaCl2 10-30, ZnSO4 1-3, and MnCl2 1-3 mg/L.

IT **50-99-7**, D-**Glucose**, biological studies
77-92-9, biological studies **7778-77-0**, Monopotassium phosphate **7783-20-2**, **Ammonium sulfate**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture medium for producing fatty acid rich mycelium by fermn. method)

L25 ANSWER 9 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:483382 CAPLUS
DOCUMENT NUMBER: 131:101552
TITLE: Fresh produce wash for increasing shelf life
INVENTOR(S): Green, Bruce Phillip
PATENT ASSIGNEE(S): Health and Hygiene International Pty. Ltd., Australia
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937172	A1	19990729	WO 1999-AU46	19990121
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9921439	A1	19990809	AU 1999-21439	19990121
PRIORITY APPLN. INFO.:			AU 1998-1465 A	19980121
			WO 1999-AU46 W	19990121

AB A compn. is disclosed for increasing the shelf life of fruit, vegetable and animal produce. The compn. is also suitable for removing surface contaminants from fruit, vegetable and animal produce. The compn. includes: (a) one or more surfactant(s), (b) one or more anti-microbial, fungicidal and/or fungistat agent(s), (c) one or more buffering agent(s) and/or sequestering agent(s), (d) one or more anti-browning agent, and (e) one or more stabilizer(s) and/or processing additive(s). The compn. is applied to the produce and optionally, the produce is subsequently rinsed with water.

IT **50-99-7**, Dextrose, biological studies **50-99-7D**, D-**Glucose**, derivs. **60-00-4**, **EDTA**, biological studies **60-00-4D**, **EDTA**, salts **77-92-9**, biological studies **7440-70-2D**, **Calcium**, carboxylic acid salts
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(fresh food produce wash for increasing shelf life)

REFERENCE COUNT: 8

REFERENCE(S):
(1) Agricultural & Food Research Council; EP 0253535 1988 CAPLUS
(2) Ahvenainen, R; Trends in Food Science & Technology 1996, V7, P179 CAPLUS
(3) Diversey Corporation; EP 0245928 1987 CAPLUS
(5) Minnesota Mining & Manufacturing Company; WO 9507616 1995 CAPLUS
(6) Monsanto Company; EP 0312519 1989 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 10 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:350713 CAPLUS
DOCUMENT NUMBER: 130:353892
TITLE: Safe and low-cost impression paste compositions, their manufacture and use

INVENTOR(S): Takai, Yoshikazu; Ebata, Kenichi
PATENT ASSIGNEE(S): Giraffe Co., Ltd., Japan
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9925765	A1	19990527	WO 1998-JP5160	19981116
W: JP, US				

PRIORITY APPLN. INFO.: JP 1997-333509 19971117

AB The compns. can cure at room temp. by merely mixing with a given amt. of water to give a gel having excellent resilience and high strength, and are useful for taking impression from, e.g., human body parts (denture) without causing health complication. The compn. comprises 100 parts glucomannan, 1 to 100, preferably 2 to 75 parts a basic hardener, 9 to 500, preferably 50 to 250 parts a neutral solute, 0 to 30, preferably 1 to 20 parts a quality regulator, and 0 to 300, preferably 1 to 150 parts a modifier. Thus, mixing konnyaku mannan 10 with agar 1, sugar 15, Ca(OH)2 0.5, boric acid 0.2, water 50 and AcOH 0.65 part gave a paste for impression taking.

IT **7558-79-4**, Disodium hydrogen phosphate
RL: CAT (Catalyst use); USES (Uses)
(curing catalyst; safe and low low-cost impression paste compns., manuf. and use)

IT **50-99-7**, D-**Glucose**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(neutral additives; safe and low low-cost impression paste compns., manuf. and use)

IT **77-92-9**, **Citric** acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(neutralizing agent; safe and low low-cost impression paste compns., manuf. and use)

REFERENCE COUNT: 1
REFERENCE(S): (1) Sumitomo Bakelite Co, Ltd; JP 03-236749 A 1991 CAPLUS

L25 ANSWER 11 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:325803 CAPLUS
DOCUMENT NUMBER: 130:349399
TITLE: High throughput method for functionally classifying proteins identified using a genomics approach
INVENTOR(S): Pantoliano, Michael W.; Salemme, Francis R.;

Petrella, Eugenio C.; Carver, Theodore E., Jr.; Rhind, Alexander W.
PATENT ASSIGNEE(S): 3-Dimensional Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924050	A1	19990520	WO 1998-US24035	19981112
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9913980	A1	19990531	AU 1999-13980	19981112
EP 1030678	A1	20000830	EP 1998-957812	19981112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1997-65129 P 19971112
WO 1998-US24035 W 19981112

AB The present invention provides a method for functionally classifying a protein that is capable of unfolding due to a thermal change. The method comprises screening one or more of a multiplicity of different mols. for their ability to shift the thermal unfolding curve of the protein, wherein a shift in the thermal unfolding curve indicates that the mol. binds to the protein or affects the stability in a measurable way; generating an activity spectrum for the protein wherein the activity spectrum reflects a set of mols., from the multiplicity of mols., that shift the thermal unfolding curve, of the protein and therefore are ligands that bind to the protein, comparing the activity spectrum for the protein to one or more functional ref. spectrum lists; and classifying the protein according to the set of mols. in the multiplicity of different mols. that shift the thermal unfolding curve of the protein. Human Factor Xa and human domain II of the fibroblast growth factor receptor 1 were each assayed by microplate thermal shift assay against a functional library screen in a 96 well plate contg. 94 compds. and 2 control wells. The proteins were added to each well along with 1,8-ANS and the microplate reactions were heated simultaneously, in two degree increments, from 40-70.degree.. Fluorescence was

measured at 460 nm.
IT **50-99-7**, D-**Glucose**, biological studies
60-00-4, **EDTA**, biological studies
7601-54-9, **Sodium phosphate**
7722-76-1, **Ammonium phosphate**
7778-53-2, **Potassium phosphate**
7783-20-2, **Ammonium sulfate**, biological studies **7785-84-4**, Sodium tri-metaphosphate
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(in functional probe library; high throughput method for functionally classifying proteins identified using genomics approach)
REFERENCE COUNT: 2
REFERENCE(S): (1) Bowie; US 5585277 A 1996 CAPLUS
(2) Pantoliano; US 5260207 A 1993 CAPLUS

L25 ANSWER 12 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:268631 CAPLUS
DOCUMENT NUMBER: 128:304784
TITLE: Transformation of Indica rice with Agrobacterium
INVENTOR(S): Hiei, Yukoh
PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan; Hiei, Yukoh
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817813	A1	19980430	WO 1997-JP3806	19971022
W: AU, CA, CN, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10117776	A2	19980512	JP 1996-298039	19961022
CA 2240454	AA	19980430	CA 1997-2240454	19971022
AU 9747219	A1	19980515	AU 1997-47219	19971022
CN 1206435	A	19990127	CN 1997-191464	19971022
EP 897013	A1	19990217	EP 1997-909573	19971022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: JP 1996-298039 19961022
WO 1997-JP3806 19971022

AB Disclosed is a method for efficient transformation of Indica rice by introducing genes into its immature germ cells by using Agrobacterium. The resultant transformants are screened in a medium

(pH 4.5-6.5) contg. 2,000-4,000 KNO3 mg/L, 60-200 MgSO4 mg/L, 200-600 KH2PO4 mg/L, 100-450 CaCl2 mg/L, 200-600 (**NH4**)2SO4 mg/L, 1-7 H3BO3 mg/L , 2-20 MnSO4 mg/L, 20-50 **EDTA** mg/L, 3-8 Fe mg/L , 50-200 myoinositol mg/L, 0.5-10 2,4-dichlorophenoxyacetic acid mg/L , 0.01-5 cytokinins mg/L , 5,000-80,000 saccharides mg/L, and gelling agents. Optionally, the medium may also contains KI, ZnSO4, Na2MoO4, CuSO4, CoCl2, Nicotinic acid, pyridoxine, thiamine, etc.

IT **50-99-7**, **Glucose**, biological studies
60-00-4, **EDTA**, biological studies
7778-77-0, **Potassium phosphate** (KH2PO4)
7783-20-2, **Ammonium sulfate** ((**NH4**)2SO4), biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(selection medium contg.; transformation of Group I Indica rice with Agrobacterium)

L25 ANSWER 13 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:580666 CAPLUS
DOCUMENT NUMBER: 127:181148
TITLE: Liquid compositions for adrenal cortex function promotion and infection prevention
INVENTOR(S): Sakata, Shigenobu; Tatsumi, Jiro; Fukai, Masaru
PATENT ASSIGNEE(S): Handa, Shigenobu, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09176029	A2	19970708	JP 1995-354770	19951226

AB Liq. compns. for adrenal cortex function promotion and infection prevention comprise Tilia exts. and substances selected from e.g. iron **ammonium** citrate, salicylic acid and **citric** acid. The compns. also can be incorporated into cosmetics or foods.

IT **50-99-7**, D-**Glucose**, biological studies
77-92-9, biological studies **7440-70-2**, **Calcium**, biological studies **7601-54-9**, **Sodium phosphate** **7681-53-0**, Sodium hypophosphite **7722-88-5** **7778-53-2**, Tripotassium phosphate **7778-77-0**, Potassium dihydrogen phosphate
RL: BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liq. compns. for adrenal cortex function promotion and infection prevention)

L25 ANSWER 14 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:227813 CAPLUS
DOCUMENT NUMBER: 126:292616
TITLE: Characteristics and action pattern of protease from Bacillus subtilis CCKS-111 in Korean traditional soy sauce
AUTHOR(S): Choi, Cheong; Choi, Kwang-Soo; Cho, Young-Je; Lim, Sung-Il; Kim, Sung; Son, Jun-Ho; Lee, Hee-Duck; Kim, Young-Hwal
CORPORATE SOURCE: Dept. Food Sci. and Technol., Yeungman Univ., Gyungsan, 712-749, Peop. Rep. China
SOURCE: Han'guk Sikp'um Yongyang Kwahak Hoechi (1996), 25(6), 915-921
CODEN: HSYHFB; ISSN: 1226-3311
PUBLISHER: Korean Society of Food Science and Nutrition
DOCUMENT TYPE: Journal
LANGUAGE: Korean

AB An alk. protease-producing microorganism was isolated from Korean traditional soy sauce and was identified as Bacillus subtilis CCKS-111. The optimal culture conditions of Bacillus subtilis CCKS-111 for the prodn. of alk. protease were as follows: 2% sol. starch, 0.2% peptone, 0.1% (**NH4**)2S2O8, 0.2% MgSO4, pH 7.0, 35.degree.C and 24 h. The optimum pH and temp. for the enzyme activity of alk. protease-producing Bacillus subtilis CCKS-111 were pH 9.0 and 50.degree.C, resp. The enzyme was relatively stable at pH 6.0.apprx.11.0 and at temp. below 40.degree.C. The activity of the enzyme was inhibited by K+ and Hg2+, whereas Cu2+ exhibited activating effects on the enzyme activity. **EDTA** and phenylmethanesulfonyl fluoride inhibited the enzyme activity. This suggests that the enzyme is serine protease which requires metal ion groups for enzyme activity. The Km value was 2.313x10-4M/L; the Vmax value was 39.216.mu.g/min. This enzyme hydrolyzed casein more rapidly than the Hb.

IT **50-99-7**, D-**Glucose**, biological studies
60-00-4, **EDTA**, biological studies
7558-79-4
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(characteristics of protease from Bacillus subtilis CCKS-111 in Korean traditional soy sauce)

L25 ANSWER 15 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:622856 CAPLUS
DOCUMENT NUMBER: 125:297216
TITLE: Haploid plant regeneration from anther cultures of three North American cultivars of strawberry (Fragaria .times. ananassa Duch.)

AUTHOR(S): Owen, Henry R.; Miller, A. Raymond
CORPORATE SOURCE: Ohio Agricultural Research Development Center, Ohio State University, Wooster, OH, 44691, USA
SOURCE: Plant Cell Rep. (1996), 15(12), 905-909
CODEN: PCRPD8; ISSN: 0721-7714
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A study was conducted to maximize plant regeneration frequencies from cultured anthers of "Chandler", "Honeoye", and "Redchief" strawberries. A comparison of auxins (IAA, NAA), cytokinins (BA, BPA, KIN) and carbohydrates (sucrose, **glucose**, maltose) in MS medium showed that the highest shoot regeneration across cultivars (8%) occurred when using a medium contg. 2 mg/L IAA, 1 mg/L BA, and 0.2 M **glucose**. A comparison of MS, NN, and H1 inorg. medium (a new formulation based on the anther culture literature) solidified with either agar or gellan gum and contg. IAA, BA, and **glucose**, showed the highest shoot regeneration across cultivars (19%) when using H1 and gellan gum. Lastly, media contg. Fe-**EDTA** yielded more shoots than media contg. Fe-metalosate, and anthers cultured on Fe-**EDTA** media in darkness for 30 days followed by 30 days in white light produced more shoots (16% av. regeneration) than those cultured on Fe-**EDTA** media under white or yellow light (16 h photoperiod) for the initial 30 d (0.3% and 5% resp.). Plants were acclimated ex vitro where they flowered and set fruit. Chromosome counts of root tip cells confirmed that haploid plants were obtained from all three cultivars.

IT **50-99-7**, **Glucose**, biological studies
7778-77-0, Monopotassium dihydrogenphosphate
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture medium for haploid plant regeneration from anther cultures of three cultivars of strawberry)

L25 ANSWER 16 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:184265 CAPLUS
DOCUMENT NUMBER: 124:283285
TITLE: Monocrystalline iron oxide particles for studying biological tissues
INVENTOR(S): Weissleder, Ralph
PATENT ASSIGNEE(S): The General Hospital Corporation, USA
SOURCE: U.S., 36 pp., Cont. of U.S. Ser. No. 725,060, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5492814	A	19960220	US 1992-970942	19921103
PRIORITY APPLN. INFO.:			US 1990-549434	19900706
			US 1991-725060	19910703

AB A liq. that contains monocryst. superparamagnetic particles and a method for prepg. this liq. are disclosed. Also described are a method of decreasing the NMR relaxation times of water protons in contact with biol. tissue by using this liq. and an in vitro method for obtaining information from biol. tissue or components thereof using this liq.

IT **60-00-4**, **EDTA**, biological studies
7440-70-2, **Calcium**, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monocryst. iron oxide particles for NMR imaging of biol. tissues)

IT **50-99-7**, Dextrose, biological studies
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monocryst. iron oxide particles for NMR imaging of biol. tissues)

L25 ANSWER 17 OF 35 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:	1995:952400 CAPLUS
DOCUMENT NUMBER:	124:100415
TITLE:	Microbiological treatment of radioactive wastes
AUTHOR(S):	Francis, A. J.
CORPORATE SOURCE:	Brookhaven National Laboratory, Department Applied Science, Upton, NY, 11973, USA
SOURCE:	Chem. Pretreat. Nucl. Waste Disposal, [Proc. Am. Chem. Soc. Symp.] (1994), Meeting Date 1992, 115-31. Editor(s): Schulz, Wallace W.; Horwitz, E. Philip. Plenum: New York, N. Y. CODEN: 61ZQAI
DOCUMENT TYPE:	Conference
LANGUAGE:	English

AB Basic studies at Brookhaven National Lab. (BNL) dealing with the mechanisms of microbiol. transformations of radionuclides and toxic metals have resulted in the development of 2 novel processes for treating radioactive wastes. One process uses anaerobic bacteria to stabilize the radionuclides and toxic metals in the waste with a concurrent redn. in vol. due to the dissoln. and removal of nontoxic elements in the waste. In the 2nd process, the toxic metals are removed from the waste by **citric** acid extn. and the metals and radionuclides in the ext. are recovered by biodegrdn. followed by photodegrdn. Both processes are considered.

IT **77-92-9D**, **Citric** acid, uranium complexes
RL: PEP (Physical, engineering or chemical process); REM (Removal or disposal); PROC (Process)
(biodegrdn. and photodegrdn. of uranium citrate ext. in view of microbiol. treatment of radioactive wastes)
IT **77-92-9**, **Citric** acid, uses
RL: NUU (Nonbiological use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(complexing agent; microbiol. treatment of radioactive wastes)
IT **50-99-7**, **Glucose**, uses
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(microbiol. treatment of radioactive wastes)
IT **7439-95-4**, **Magnesium**, processes **7440-70-2**
, **Calcium**, processes
RL: REM (Removal or disposal); PROC (Process)
(microbiol.-based waste treatment for radionuclides and metals)
IT **7758-11-4** **7778-77-0**
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(nutrient; biodegrdn. of metal citrate ORNL sludge ext. in view of microbiol. treatment of radioactive wastes)

L25 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:132407 CAPLUS
DOCUMENT NUMBER: 120:132407
TITLE: Oxytetracycline formation in blackstrap molasses medium by Streptomyces rimosus
AUTHOR(S): Abou-Zeid, A. A.; Khan, J. A.; Abulnaja, K. O.
CORPORATE SOURCE: Fac. Sci., King Abdulaziz Univ., Jeddah, Saudi Arabia
SOURCE: Zentralbl. Mikrobiol. (1993), 148(5), 351-6
CODEN: ZEMIDI; ISSN: 0232-4393
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Analyses of blackstrap molasses revealed that it contains many misc. compds. in the form of monosaccharides, such as **glucose**, fructose, and arabinose, disaccharides such as sucrose, and trisaccharides such as raffinose. It also contains some amino acids, **citric** and aconitic acids, and many trace elements, such as sodium, potassium, **magnesium**, and **calcium**. Utilization of urea as an org. nitrogen source was more effective than (**NH4**)2SO4 for oxytetracycline formation by Streptomyces rimosus. The suitable urea concn. was in the range of 1.5 mg/mL. The suitable KH2PO4 concn. was also in the range of 1.5 mg/mL. Blackstrap molasses was better for the antibiotic formation than **glucose** as the carbon source. This suitability may be attributed to its complex compn. Moreover, it is cheaper than other raw resources.
IT **7778-77-0**, KH2PO4

RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(oxytetracycline manuf. with Streptomyces rimosus response to)

L25 ANSWER 19 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:120456 CAPLUS
DOCUMENT NUMBER: 118:120456
TITLE: Method, kit and compositions for the determination of nitrates in biological solutions, particularly in soil and in vegetable growths, by reduction to nitrites
PATENT ASSIGNEE(S): Ben-Gurion University of the Negev, Israel
SOURCE: Israeli, 18 pp.
CODEN: ISXXAQ
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IL 70316	A1	19920525	IL 1983-70316	19831123

AB Nitrate ions are detd. in biol. solns., esp. in soil and in vegetable growths, contg. 0.01-100 ppm nitrate ions, by the redn. of nitrate to nitrite. The nitrate is reacted in a predetd. proportion, regardless of the total amt. in the soln., to form an ion and/or the resp. compd., which is then detd. The redn. of nitrate to nitrite is carried out with a compn. contg. a Zn powder and a mono- or disaccharide or polyalc., or .gtoreq.1 inorg. and/or citrate salts, the total amt. of nitrate in the original soln. being detd. by means of the quantity of reacted ions and the known proportion in which they have been caused to react, the detection of nitrite being performed by colorimetric methods. A kit for performing the method is also disclosed. The method of the invention provides an easy, quick way to det. nitrate ions over a wide concn. range without requiring the use of strong and concd. acids. or the need for filtration or centrifugation processes for eliminating excess reductants; diln. procedures which lower the precision of the detn. are also not required. The method was used in the anal. of filtered plant exts. and of tap water.

IT **50-99-7**, **Glucose**, uses **77-92-9**, **Citric** acid, uses **77-92-9D**, **Citric** acid, salts **7722-88-5**, Tetrasodium pyrophosphate
RL: USES (Uses)
(in nitrate colorimetric detn. in soil-derived or plant-derived or other biol. soln. by redn. to nitrite)

L25 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1992:421738 CAPLUS
DOCUMENT NUMBER: 117:21738
TITLE: Effects of plate preparation on results in microbial mutation assays
AUTHOR(S): Majeska, Jenness B.; McGregor, Douglas B.
CORPORATE SOURCE: Boehringer Ingelheim Pharm., Ridgefield, CT, USA
SOURCE: Environ. Mol. Mutagen. (1992), 19(3), 244-52
CODEN: EMMUEG; ISSN: 0893-6692
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Glucose** autoclaved in an alk. phosphate soln. (heated **glucose** + salts, HGS) results in the prodn. of a moiety that is nonmutagenic but can interact with a series of 4-[2-(aryl)ethenyl]-2,6-dimethylphenols to result in an increase in bacterial revertants that is dependent on the amt. of HGS in the minimal agar plates. The reaction between the HGS and the chem. to form a mutagen is independent of the presence of bacteria, does not result in a nutritive analog to enhance growth of the auxotrophic bacteria, and is effective only in Salmonella typhimurium and Escherichia coli strains that contain the plasmid pKM101. A sufficient amt. of this **glucose** product may be formed in normal plate prepn. to produce apparent mutagenic activity of these chems.

IT **50-99-7D**, **Glucose**, pyrolyzates
RL: BIOL (Biological study)
(aryl(ethenyl)dimethylphenols mutagenicity in microbes response to)

IT **50-99-7**, **Glucose**, biological studies
RL: BIOL (Biological study)
(dimethyl(thienyl)ethenylphenol mutagenicity in microbes response to)

IT **77-92-9**, biological studies **7758-11-4**, **Potassium phosphate** dibasic
RL: BIOL (Biological study)
(dimethyl(thienyl)ethenylphenol mutagenicity in microbes response to, after thermal sterilization)

L25 ANSWER 21 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:104498 CAPLUS
DOCUMENT NUMBER: 116:104498
TITLE: Culture conditions for cyclosporin A manufacture with Tolypocladium or Sesquicillopsis
INVENTOR(S): Bormann, Ernst Joachim; Schlegel, Brigitte; Freysoldt, Christiane; Graefe, Udo; Bell, Hubertus; Rudat, Wolf Ruediger; Olbrich, Matthias; Langer, Juergen
PATENT ASSIGNEE(S): Arzneimittelwerk Dresden G.m.b.H., Germany
SOURCE: Ger. (East), 4 pp.

CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 295873	A5	19911114	DD 1989-329139	19890601
DD 295873	B5	19960404		

AB Culture conditions for high yields of cyclosporin A from cultures of Tolypocladium inflatum and Sesquicillopsis rosarii are described. Yields are dependent upon the nitrogen source and divalent cation content of the medium with Mg and Zn particularly important. Yields of up to 1150 mg cyclosporin A/L medium were found with S. rosarii??? after 11 days at 24.degree. in a defined **glucose** /salts medium contg. diammonium hydrogen citrate as N source and ZnSO4.7H2O 3mg/L.

IT **77-92-9D**, **Citric** acid, salts
RL: BIOL (Biological study)
(as carbon source in cyclosporin A manuf. with Sesquicillopsis rosarii or Tolypocladium inflatum)

IT **7783-20-2**, **Ammonium sulfate**, uses
7783-28-0, Diammonium hydrogen phosphate
RL: USES (Uses)
(as nitrogen source in cyclosporin A manuf. with Sesquicillopsis rosarii or Tolypocladium inflatum)

IT **7440-70-2D**, **Calcium**, salts
RL: BIOL (Biological study)
(in cyclosporin A manuf. with Sesquicillopsis rosarii)

L25 ANSWER 22 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:16746 CAPLUS
DOCUMENT NUMBER: 116:16746
TITLE: Determination of cadmium by electrothermal atomic absorption spectrometry
AUTHOR(S): Komarek, Josef; Slaninova, Martina; Vrestal, Jan; Sommer, Lumir
CORPORATE SOURCE: Dep. Anal. Chem., Masaryk Univ., Brno, 611 37, Czech.
SOURCE: Collect. Czech. Chem. Commun. (1991), 56(10), 2082-95
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In the presence of org. compds., such as **EDTA**, **citric** acid, or triethanolamine, the absorbance signal of Cd during atomization in a tube of electrographite or covered with

pyrolytic graphite appears at a lower temp. than the signal from CdCl2. With urine, however, the addn. of these compds. often causes splitting of the single absorbance pulse of Cd or an increase of one of the components of a splitted pulse. Addn. of a simple modifier HNO3 is therefore recommended for analyses of urine using atomization in a tube of electrographite. The evaluation of the cadmium concn. was done from integrated absorbances by the method of std. addns.

IT **50-99-7**, **Glucose**, biological studies
60-00-4, **EDTA**, biological studies **77-92-9**
, **Citric** acid, biological studies **7722-76-1**
RL: BIOL (Biological study)
(cadmium detn. by electrothermal at. absorption spectrometry response to)

L25 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:254015 CAPLUS
DOCUMENT NUMBER: 114:254015
TITLE: Water-containing formulations with phospholipids
INVENTOR(S): Lautenschlaeger, Hans Heiner; Ghyczy, Miklos; Roeding, Joachim
PATENT ASSIGNEE(S): Nattermann, A., und Cie. G.m.b.H., Fed. Rep. Ger.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9012565	A1	19901101	WO 1990-EP621	19900418
W: CA, FI, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
CN 1046848	A	19901114	CN 1990-102579	19900424

PRIORITY APPLN. INFO.: DE 1989-3913513 19890425
OTHER SOURCE(S): MARPAT 114:254015

AB A water-contg. liposomal formulation comprises a mixt. of phospholipids 10-50%, swelling accelerators such as collagen hydrolyzates and org. carboxylic acids 1-30%, a strong base to yield a pH of 5-7, and water for balance. Use of the swelling accelerators allows the easy prepn. of aq. formulations contg. phospholipids. A mixt. of **citric** acid 0.5, NaOH 0.3, anhyd. **glucose** 10, and water 100g was stirred, then phospholipon 100 30g was added to this soln. and homogenized to obtain a liposomal formulation with pH 6.5 and mean particle size of 100 nm.

IT **7558-79-4**, Disodium hydrogen phosphate **7558-80-7**, Sodium dihydrogen phosphate
RL: BIOL (Biological study)
(in manuf. of pharmaceutical liposomes)
IT **77-92-9**, **Citric** acid, biological studies
RL: BIOL (Biological study)
(swelling accelerator, in manuf. of pharmaceutical liposomes)

L25 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:571021 CAPLUS
DOCUMENT NUMBER: 113:171021
TITLE: Manufacture of complex fertilizers containing potassium dihydrogen phosphate.
INVENTOR(S): Feng, Hongzhang
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1036005	A	19891004	CN 1988-101637	19880320

AB The fertilizer comprises KH_2PO_4 40, urea 10, H_3BO_3 9, $ZnSO_4$ 9, $MgSO_4$ 9, $MnSO_4$ 8, Se powder 0.01, $CoSO_4$ 0.5, bromide 0.05, KI 0.5, $(NH_4)_2MoO_4$ 0.5, rare earth metal nitrate 0.5, sucrose 5.6, **glucose** 3.7, glutamic acid 0.54, **citric** acid 2, vitamin B1 0.05, cellulose 1, erythromycin 0.01, and a phytohormone 0.04 parts by wt. An 0.01% aq. soln. was applied to mushroom culture medium to result in 70-80% yield increase.
IT **50-99-7**, **Glucose**, biological studies **77-92-9**, biological studies **7778-77-0**, Potassium dihydrogenphosphate
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer contg.)

L25 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:571020 CAPLUS
DOCUMENT NUMBER: 113:171020
TITLE: Fertilizer containing rare earth metals and trace elements.
INVENTOR(S): Feng, Hongzhang
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.

CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1036004	A	19891004	CN 1988-101635	19880320

AB The title fertilizer contains KH2PO4 40, urea 8, H3BO3 8, ZnSO4 10, MgSO4 8, MnSO4 7, CuSO4 6, Fe(**NH4**)2(SO4)2 5, rare earth metal nitrates 0.3, sucrose 5, **glucose** 0.8, glutamic acid 0.47, **citric** acid 2, vitamin B1 0.4, cellulose 1, naphthylacetic acid 0.1 and another phytohormone 0.02 wt.%. The fertilizer enhances plant growth and increases crop yield.

IT **50-99-7**, **Glucose**, biological studies
77-92-9, biological studies **7778-77-0**, Potassium dihydrogenphosphate
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer contg.)

L25 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:493684 CAPLUS
DOCUMENT NUMBER: 113:93684
TITLE: Isolation and partial characterization of phosphoenolpyruvate carboxylase from germinating seeds of maize (Zea mays)
AUTHOR(S): Leblova, Sylva; Vojtechova, Martina; Strakosova, Alexandra
CORPORATE SOURCE: Fac. Sci., Charles Univ., Prague, 128 40, Czech.
SOURCE: Biologia (Bratislava) (1989), 44(12), 1161-9
CODEN: BLOAAO; ISSN: 0006-3088
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phosphoenolpyruvate carboxylase (PEPC) was found in germinating maize seeds during the 1st 5 days of germination. The enzyme was isolated by a procedure involving extn. of the seed homogenate by a Tris-HCl buffer contg. **EDTA**, Mg2+, and dithiothreitol or mercaptoethanol, the isolation being less successful if a **Na phosphate** buffer was used. The ext. was pptd. by **ammonium sulfate**, dialyzed, chromatographed on DEAE cellulose, gel filtrated on Sephadex G-200 and rechromatographed on DEAE cellulose. The enzyme was electrophoretically homogeneous. The stability of the prepn. increased with the purifn. degree. The enzyme was most stable at optimum pH 8.1. It was inactivated by 5-min heating to 45.degree. or 15-min heating to 40.degree.. Its thermostability could be enhanced by the addn. of **glucose** 6-phosphate. PEPC

isolated from germinating seeds was inactivated by high concns. of NaCl, (**NH4**)2SO4, Na2SO3, and **Na phosphate**. The mechanism of inactivation is under study. Km For PEP was 0.14 and 0.08 mmol.cntdot.L-1 at pH 7.0 and 8.1, resp. The dependence of the enzyme activity on the concn. of the Mg2+ cofactor was not purely hyperbolic: Km for Mg2+ at 0-0.3 mmol.cntdot.L-1 was 0.07 mmol.cntdot.L-1, while at 0.3 to 2.5 mmol.cntdot.L-1 it was as high as 0.71 mmol.cntdot.L-1.

IT **7439-95-4**, **Magnesium**, reactions
RL: RCT (Reactant)
(reaction of, with phosphoenolpyruvate carboxylase of germinating corn seeds, kinetics of)

L25 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:215220 CAPLUS
DOCUMENT NUMBER: 112:215220
TITLE: Method for ergot clavine alkaloids preparation by submerse cultivation of saprofyte cultures of fungus genus Claviceps
INVENTOR(S): Bremek, Jan; Rehacek, Zdenek; Pilat, Petr; Malinka, Zdenek; Pazoutova, Sylvie; Chomatova, Stanislava; Spacil, Jiri; Rylko, Viktor; Barta, Miroslav; et al.
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 5 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 261951	B1	19890210	CS 1986-388	19860117

AB Ergot clavine (ergoline) alkaloids with low glucan content are manufd. using Claviceps, following a two-step process for prepn. of a vegetative inoculum for the final fermn. process. The 1st step, conducted at 18-27.degree. for 5-17 days, uses medium contg. sucrose, corn ext., inorg. salts, and succinate acid. The 2nd step, as above for 3-11 days, uses medium contg. saccharides, and optionally inorg. salts, corn ext., org. acids, and phenobarbital. The prepd. inoculum is used in the final manufg. step in medium contg. sucrose, **glucose**, inorg. salts, org. acids, and phenobarbital. Use of the above procedure with a final fermn. step at 24.degree. for 17 days yield agroclavine 2085, elymoclavine 2338, and clavine alkaloids 156 mg/L (from 50 mL fermn. medium) contg. glucans 0.25 g/L.

IT **50-99-7**, **Glucose**, biological studies

77-92-9, **Citric** acid, biological studies
7778-77-0, Potassium dihydrogenphosphate **7783-20-2**
, **Ammonium sulfate**, biological studies
RL: BIOL (Biological study)
(in ergoline alkaloid manuf. with Claviceps, glucan formation inhibition in relation to)

L25 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:588936 CAPLUS
DOCUMENT NUMBER: 111:188936
TITLE: Cytotoxicity testing of 114 compounds by the determination of the protein content in Hep G2 cell cultures
AUTHOR(S): Dierickx, P. J.
CORPORATE SOURCE: Inst. Hyg. Epidemiol., Brussels, B-1050, Belg.
SOURCE: Toxicol. In Vitro (1989), 3(3), 189-93
CODEN: TIVIEQ; ISSN: 0887-2333
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The cellular protein content measured in cultured Hep G2 cells was used as the endpoint for detg. the cytotoxicity of a range of 114 chem. compds. The relative toxicity of the test compds. was quantified by the detn. of the PI50, which is the concn. of xenobiotic required to produce a 50% redn. in protein content of the culture after 24 h. Surfactants and heavy metals consistently had low PI50 values. Hep G2 cells were very sensitive to compds. with more than one carboxyl group. Triacetin and glutathione were identified as false positives. Thus, the PI50 assay could be a useful pre-screening method to test for the cytotoxicity of chems.
IT **50-99-7**, D-**Glucose**, biological studies
77-92-9, **Citric** acid, biological studies
7558-79-4, **Sodium phosphate**, dibasic
7664-41-7, **Ammonia**, biological studies
7778-77-0, **Potassium phosphate**, monobasic
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(cytotoxicity of, protein content in Hep G2 cells in relation to)

L25 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:529805 CAPLUS
DOCUMENT NUMBER: 111:129805
TITLE: Method for manufacture of immobilized enzymes or immobilized microorganisms
INVENTOR(S): Tanaka, Hideo; Irie, Shinji
PATENT ASSIGNEE(S): Kibun Co., Ltd., Japan; Kibun Food Chemifa Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63160584	A2	19880704	JP 1986-306545	19861224
JP 04016155	B4	19920323		

AB After adding enzymes or microorganisms and difficultly sol. Ca salts on an aq. salt soln. (that forms a difficultly sol. salt with Ca) to a Na alginate soln., the mixt. is contacted with a Ca2+ soln. for gelation for enzyme or microorganism immobilization. Com. Na alignate and Ca phosphate was dissolved in water, sterilized, and mixed with a culture contg. Saccharomyces cerevisiae, **glucose**, K2HPO4, MgSO4, (**NH4**)2SO4 and yeast ext. The mixt. was added dropwise in a 0.3M CaCl2 soln. to form gel beads contg. S. cerevisiae. The prepn. had a rupture strength of 200 g/bead.

IT **77-92-9**, **Citric** acid, biological studies
7440-70-2, **Calcium**, biological studies
7558-79-4, Sodium monohydrogen phosphate **7558-80-7**
, Sodium dihydrogen phosphate **7601-54-9**, Trisodium phosphate **7758-11-4**, Potassium monohydrogen phosphate **7778-53-2**, Tripotassium phosphate **7778-77-0**, Potassium dihydrogen phosphate
RL: BIOL (Biological study)
(in enzyme or alginate immobilization on sodium alginate prepns.)

L25 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:6612 CAPLUS
DOCUMENT NUMBER: 110:6612
TITLE: Contribution concerning the composition of lemon juice
AUTHOR(S): Wallrauch, S.; Greiner, G.
CORPORATE SOURCE: Wuerzburg, Fed. Rep. Ger.
SOURCE: Fluess. Obst (1988), 55(8), 431, 436-89
CODEN: FLOBA3; ISSN: 0015-4539
DOCUMENT TYPE: Journal
LANGUAGE: English/German

AB Pasteurized fresh and concd. lemon juices (142 samples) from 9 producer countries were analyzed, and the distribution of titratable acidity, malic acid, isocitric acid, **K**, **phosphate**, proline, Mg, formol no., **citric** acid/isocitric acid ratio, aspartic acid, serine, alanine, glutamic acid, and GABA value distributions (based on a relative d. of 1.038) are graphed. The use of these values to evaluate lemon juice purity and country of

origin is discussed.
IT **50-99-7**, **Glucose**, biological studies
RL: BIOL (Biological study)
(isocitric acid ratio to, of lemon juice, purity and source in relation to)
IT **77-92-9**, **Citric** acid, biological studies
7439-95-4, **Magnesium**, biological studies
7440-70-2, **Calcium**, biological studies
RL: BIOL (Biological study)
(of lemon juice, purity and source in relation to)

L25 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:638201 CAPLUS
DOCUMENT NUMBER: 109:238201
TITLE: Solubility data: sulfanilamide - aqueous systems
AUTHOR(S): Paruta, Anthony N.; Piekos, Ryszard
CORPORATE SOURCE: Dep. Pharm., Univ. Rhode Island, Kingston, RI, USA
SOURCE: Solubility Data Ser. (1988), 34, 13-167
CODEN: SDSEDK; ISSN: 0191-5622
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A data table. The soly. of sulfanilamide in aq. solns. contg. various electrolytes and nonelectrolytes are presented and crit. evaluated.
IT **50-99-7**, D-**Glucose**, properties **77-92-9**, properties **7558-79-4** **7778-77-0**
RL: PRP (Properties)
(soly. of sulfanilamide in aq. solns. contg.)

L25 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:23334 CAPLUS
DOCUMENT NUMBER: 106:23334
TITLE: Detection of endotoxins in pharmaceutical raw materials for use in large volume parenterals (LVP) with the LAL test
AUTHOR(S): Pfeiffer, Michael; Koppensteiner, G.; Weiss, A. R.
CORPORATE SOURCE: B. Braun Melsungen A.-G., Melsungen, 3508, Fed. Rep. Ger.
SOURCE: Pharm. Ind. (1986), 48(8), 951-5
CODEN: PHINAN; ISSN: 0031-711X
DOCUMENT TYPE: Journal
LANGUAGE: German
AB A computer model for testing endotoxin concns. with the Limulus amebocyte lysate (LAL) test was developed for 82 drugs for use in different LVP. Forty four of the 82 materials were compatible with

the LAL in the calcd. concn. range 5 IU/10 mL and 38 of them inhibited or enhanced the LAL test. The calcd. test concns., solvents used, compatibility with the LAL test and results of the ultrafiltration of the drugs (to eliminate the inhibition or enhancement of the LAL test) are tabulated. In 35 drugs which inhibited the LAL test, the pH value inspite of the use of **Na phosphate** buffer as the solvent was too acidic (in 10 cases), and too alk. (in 6 cases).

IT **50-99-7**, **Glucose**, analysis **77-92-9**, **Citric** acid, analysis **7558-79-4**, Disodium hydrogen phosphate **7558-80-7**, Sodium dihydrogen phosphate **7758-11-4**, Dipotassium hydrogen phosphate **7778-77-0**, Potassium dihydrogen phosphate
RL: AMX (Analytical matrix); ANST (Analytical study)
(endotoxins detection in, by Limulus amebocyte lysate test, for use in large vol. parenterals)

L25 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1978:402147 CAPLUS
DOCUMENT NUMBER: 89:2147
TITLE: Purification and properties of alkaline phosphatase isolated from buffalo milk
AUTHOR(S): Sharma, R. S.; Ganguli, N. C.
CORPORATE SOURCE: Natl. Dairy Res. Inst., Karnal, India
SOURCE: Indian J. Dairy Sci. (1977), 30(3), 229-42
CODEN: IJDSAI; ISSN: 0019-5146
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Alk. phosphatase (I) from the cream and skim milk phase of buffalo milk was purified and its properties were studied. Purifn. from the skim milk and cream phase was 350- and 980-fold, resp. For both enzymes, simple Michaelis-Menten kinetics were shown for hydrolysis of p-nitrophenyl phosphate. The Km values were 6.6 .times. 10-4 and 2.6 .times. 10-4 for skim milk and cream I, resp. The optimum pH was 9.5 and thermal inactivation occurred at 70.degree.. Substrate specificity with different phosphoric esters was studied. In general, sugar 6-phosphates were hydrolyzed at comparable rates; **glucose** 6-phosphate was hydrolyzed faster than **glucose** 1-phosphate. I was stimulated by Mg2+ and inhibited by **EDTA**, p-chloromercaptobenzoate, N-ethyleneimine, N-terminal **NH2** group blocking reagents (fluorodinitrobenzene), NaHCO3, urea, and 2-mercaptoethanol. Trypsin increased I activity, whereas rennet had no effect. I of cream contained 2 isoenzymes, but skim milk I showed only 1 component on Sephadex filtration.

IT **60-00-4**, biological studies
RL: BIOL (Biological study)
(alk. phosphatase of cream and skim milk inhibition by)

IT **7439-95-4**, biological studies
RL: BIOL (Biological study)
(alk. phosphatase of cream and skim milk stimulation by)
IT **7722-88-5**
RL: RCT (Reactant)
(reaction of, with alk. phosphatase of buffalo milk)

L25 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1978:188595 CAPLUS
DOCUMENT NUMBER: 88:188595
TITLE: Investigations on the pathogenesis of hypomagnesemic tetany in sheep
AUTHOR(S): Meyer, H.; Scholz, H.; Busse, F. W.
CORPORATE SOURCE: Inst. Anim. Nutr., Tieraerztl. Hochsch. Hannover, Hannover, Ger.
SOURCE: Proc. Int. Conf. Prod. Dis. Farm Anim., 3rd (1977), Meeting Date 1976, 92-5. Cent. Agric. Publ. Documentation: Wageningen, Neth.
CODEN: 37VRAA
DOCUMENT TYPE: Conference
LANGUAGE: English
AB In expts. with sheep fed different amts. of Mg the cause for the incidence of clin. symptoms in hypomagnesemia was investigated. In the appearance of the acute clin. symptoms, neither a redn. of the Ca level in blood nor the uptake of high amts. of **NH3**, **phosphate**, or **citric** acid seemed to be involved. On the other hand, between the Mg content in cerebrospinal fluid (CSF) and clin. symptoms, a strong correlation could be established. This was confirmed by perfusing the ventricular system by an artificial Mg-free CSF. A small redn. of the Mg content in the intercellular fluid of the CNS may lead to functional, reversible disturbances, probably by a lower **glucose** uptake of the nerve cell. In Mg deficiency, the Mg level in blood decreased more rapidly than in the CSF. The Mg in the CSF seemed to buffer the brain against large fluctuations of Mg in the blood. Tetanic seizures can occur, therefore, in different stages and(or) after different times of hypomagnesemia.
IT **7439-95-4**, biological studies
RL: BIOL (Biological study)
(deficiency of, in sheep, tetany from)

L25 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1976:46735 CAPLUS
DOCUMENT NUMBER: 84:46735
TITLE: **Calcium** carbonate
INVENTOR(S): Woode, Richard D. A.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., Engl.
SOURCE: Ger. Offen., 16 pp.

CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2505304	A1	19750821	DE 1975-2505304	19750207
DE 2505304	C2	19850912		
GB 1447566	A	19760825	GB 1974-6686	19750130
AU 7577972	A1	19760812	AU 1975-77972	19750206
US 4018877	A	19770419	US 1975-548807	19750210
FR 2261227	A1	19750912	FR 1975-4518	19750213
FR 2261227	B1	19810828		
JP 50117699	A2	19750913	JP 1975-18051	19750214
JP 56035612	B4	19810818		
ES 434725	A1	19770316	ES 1975-434725	19750214

PRIORITY APPLN. INFO.: GB 1974-6686 19740214

AB CaCO3, suitable for use as a filler in paint, plastics, and rubber is prepd. from an aq. soln. of Ca(OH)2 through carbonation by adding an agent for complexing Ca ions following the primary step for nucleation of the CaCO3. The complexing agent may be a long-chain fatty acid or its salt or a hydroxypolycarboxylic acid, in amts. of 0.5-1%. Thus, an aq. soln. of Ca(OH)2 at 25.degree. is mixed with air and CO2. After 10 min, 0.2% **citric** acid is added and the carbonation interrupted after 50 min when the mixt. becomes acidic. The reaction is continued by heating for 20 min to 85.degree. and aging for 30 min. After a pH <8.0 is obtained, 0.8% stearic acid in an **NH3 soln**. and the mixt. agitated for 3 hr at 85.degree.. The suspension is filtered and the filter cake extruded and dried at 130.degree.. The hardness and texture of the particles can be varied by altering the concn. of additives and the time at which they are added.

IT **50-99-7**, uses and miscellaneous **60-00-4**, uses and miscellaneous **77-92-9**, uses and miscellaneous **10124-56-8**
RL: USES (Uses)
(**calcium** hydroxide carbonation in presence of)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 09:48:11 ON 06 JUN 2001)
L26 12 S L25
L27 11 DUP REM L26 (1 DUPLICATE REMOVED)

L27 ANSWER 1 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-628267 [60] WPIDS
DOC. NO. CPI: C2000-188254

TITLE: Producing heterologous proteins or polypeptides such as antibody, hormones and interferons in transformed Pichia by culturing Pichia in a medium of specified composition supplemented with **glucose** and alcohol.
DERWENT CLASS: B04 D16
INVENTOR(S): ZAMOST, B L
PATENT ASSIGNEE(S): (ZYMO) ZYMOGENETICS INC
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000056903	A2	20000928	(200060)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2000039100	A	20001009	(200103)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000056903	A2	WO 2000-US7618	20000321
AU 2000039100	A	AU 2000-39100	20000321

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000039100	A Based on	WO 200056903

PRIORITY APPLN. INFO: US 1999-274263 19990322
AN 2000-628267 [60] WPIDS
AB WO 200056903 A UPAB: 20001123
NOVELTY - Recombinant Pichia host is incubated in a soluble minimal medium to produce a Pichia culture, expressing a (poly)peptide under the control of a methanol-inducible promoter and is fed with a limiting amount of **glucose** for a period of time sufficient to derepress its methanolic pathway. An alcohol feed is then supplemented to the culture.

DETAILED DESCRIPTION - Recombinant Pichia host is incubated in a soluble minimal medium to produce a Pichia culture, expressing a (poly)peptide under the control of a methanol-inducible promoter and is fed with a limiting amount of **glucose** for a period of

time sufficient to derepress its methanolic pathway. An alcohol feed is then supplemented to the culture. The soluble minimal medium essentially consists of water, **glucose**, inorganic **ammonia**, **potassium**, **phosphate**, iron, biotin and **citric** acid. The alcohol feed is supplemented either with a limiting amount of **glucose** or in the absence of a **glucose** feed which stimulates the production of the (poly)peptide by the cultured Pichia cells.

An INDEPENDENT CLAIM is also included for a variation of the above method comprising culturing Pichia in a medium comprising **glucose**, fructose or mannose, not supplemented with alcohol or in a medium comprising alcohol as the sole carbon source.

USE - The method is useful for producing a (poly)peptide, especially an antibody or its fragment, Factor VIIa, proinsulin, insulin, follicle stimulating hormone, tissue type plasminogen activator, tumor necrosis factor, interleukin, granulocyte-colony stimulating factor, granulocyte macrophage-colony stimulating factor, interferon, leptin, stem cell growth factor, erythropoietin or thrombopoietin in transformed Pichia (claimed).

DESCRIPTION OF DRAWING(S) - The figure shows the time course of leptin production by Pichia methanolica in a fed batch fermentation without co-feeding of alcohol and **glucose**. 'DCW' refers to dry cell weight and 'EFT' to elapsed fermentation time.

Dwg.1/8

L27 ANSWER 2 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-253119 [21] WPIDS
DOC. NO. CPI: C1999-073921
TITLE: Administering therapeutic iodine.
DERWENT CLASS: A96 B06 B07
INVENTOR(S): DUAN, Y; HICKEY, J; KESSLER, J; PANICUCCI, R
PATENT ASSIGNEE(S): (SYMB-N) SYMBOLLON CORP
COUNTRY COUNT: 83
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5885592	A	19990323	(199921)*		12
WO 9921567	A1	19990506	(199925)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9911227	A	19990517	(199939)		
NO 2000001673	A	20000524	(200036)		
EP 1024815	A1	20000809	(200039)	EN	

R: AT BE CH DE DK ES FI FR GB GR IT LI NL PT SE
BR 9812588 A 20000725 (200043)
CN 1272789 A 20001108 (200114)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5885592	A	US 1997-960149	19971029
WO 9921567	A1	WO 1998-US22720	19981027
AU 9911227	A	AU 1999-11227	19981027
NO 2000001673	A	WO 1998-US22720	19981027
		NO 2000-1673	20000331
EP 1024815	A1	EP 1998-954002	19981027
		WO 1998-US22720	19981027
BR 9812588	A	BR 1998-12588	19981027
		WO 1998-US22720	19981027
CN 1272789	A	CN 1998-809764	19981027

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9911227	A	Based on	WO 9921567
EP 1024815	A1	Based on	WO 9921567
BR 9812588	A	Based on	WO 9921567

PRIORITY APPLN. INFO: US 1997-960149 19971029
AN 1999-253119 [21] WPIDS
AB US 5885592 A UPAB: 19990603
NOVELTY - Administering therapeutic iodine for treating a disorder comprises feeding the patient an oxidant for an iodine species and an iodine reductant with at least one of these compounds containing an iodine species which undergoes an oxidation-reduction reaction upon contact with the gastric juices present in the stomach and generates molecular iodine, in vivo.

DETAILED DESCRIPTION - Administering therapeutic iodine for treating a disorder comprises feeding the patient an oxidant for an iodine species and an iodine reductant with at least one of these compounds containing an iodine species which undergoes an oxidation-reduction reaction upon contact with the gastric juices present in the stomach and generates molecular iodine, in vivo, at a ratio of molecular iodine to total iodine above 0.65.

An INDEPENDENT CLAIM is also included for a non-aqueous composition for administering therapeutic iodine to a mammal comprising the oxidant and reductant as described above.

ACTIVITY - Simulated gastric fluid (SGF) was prepared as follows: 2.0 g of sodium chloride was dissolved in 750 ml of

distilled water and then 7.0 ml of hydrochloric acid containing 3.2 g of pepsin was added with distilled water to bring the total volume to 1000 ml. Horseradish peroxidase (HRP), which is known to catalyze the formation of iodine in the presence of hydrogen peroxide via the oxidation of iodide, was dissolved in SGF at a concentration of 1.0 mg/ml. The activity of the HRP and its absorbance at 406 nm was monitored over the course of an hour. There was only a 20% decrease in the absorbance at 406 nm indicating that the tertiary structure of HRP was relatively stable in the presence of SGF. The rate at which horseradish peroxidase catalyzed the formation of iodine was correspondingly reduced at the end of the hour by 33%. Five grams of **citric** acid and 1 gram of sodium citrate were combined in one liter of water to yield a buffer with a pH of 3.0. A second identical buffer was prepared that contained 10% pig mucin. A mixture of sodium iodide (1 g) and HRP (5 mg) was made, and used as a single reagent. The following reaction was initiated: 500 ml of buffer or 500 ml of 10% mucin was mixed with 1.0 g of the iodide mixture and 1.0 ml of 30% hydrogen peroxide. The concentration of molecular iodine was monitored as a function of time (Gottardi, W., Fresenius Z. Anal. Chem. Vol. 314, pp.582-585, 1983). At 8 minutes the buffer control has a molecular iodine concentration of 30.1 ppm; the same reaction in 10% pig mucin has a concentration of molecular iodine of 38.1 ppm. This experiment demonstrates that a HRP can be used to catalyze the oxidation of iodide by hydrogen peroxide in the stomach and can generate molecular iodine in gastric fluid and in the presence of mucin. Additional experiments using Lugol's solution diluted in simulated gastric fluid at various ratios in the presence of 10% mucin did not yield any measurable molecular iodine. This experiments suggests that it may be advantageous to generate molecular iodine in situ in the stomach as opposed to delivering molecular iodine to the stomach.

MECHANISM OF ACTION - None given.

USE - The method is used to treat disorders such as fibrocystic breast syndrome, breast cancer, premenstrual syndrome, endometriosis and stomach ulcers.

ADVANTAGE - The chemicals administered are nontoxic.

Dwg.0/1

L27 ANSWER 3 OF 11 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 1999138540 EMBASE

TITLE: Optimization of alkaline protease productivity by Bacillus licheniformis ATCC 21415.

AUTHOR: Mabrouk S.S.; Hashem A.M.; El-Shayeb N.M.A.; Ismail A.-M.S.; Abdel-Fattah A.F.

CORPORATE SOURCE: S.S. Mabrouk, Dept. Natural Microbial Prod. Chem., National Research Centre, Dokki, Cairo, Egypt

SOURCE: Bioresource Technology, (1999) 69/2 (155-159). Refs: 18

ISSN: 0960-8524 CODEN: BIRTEB
PUBLISHER IDENT.: S 0960-8524(98)00165-5
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The production of alkaline proteases by Bacillus licheniformis ATCC 21415 was studied. The highest yield of alkaline protease was achieved using a mixture of lactose (4%) and **glucose** (1.5%) as carbon source. An alkaline extracted soybean (6%) and **ammonium phosphate** (1.2%) mixture was the best nitrogen source. Addition of CaCl2 from 0.01 to 0.07% optimized the production of the enzyme. Adding 1% corn oil to the medium as surfactant led to a dramatic increase of the activity to 20379 U ml-1. In addition, the activity reached 29554 U ml-1 when the agitation was increased from 250 to 400 rpm. B. licheniformis 21415 could produce the same amount of protease whether sodium lauryl sulphate (SLS) was added to the medium at 0.15% concentration or not. The enzyme was stable at 50.degree.C for 15 min and lost 48.8% of its activity after 1 h. Polyphosphate slightly inhibited the enzyme activity (3%), but **EDTA** caused a loss of 22% of the original activity.

L27 ANSWER 4 OF 11 MEDLINE

ACCESSION NUMBER: 91037362 MEDLINE
DOCUMENT NUMBER: 91037362 PubMed ID: 2230374
TITLE: An improved differential medium, CA medium, for differentiating Shigella.
AUTHOR: Tokoro M; Nagano I; Goto K; Nakamura A
CORPORATE SOURCE: Gifu Prefectural Institute of Public Health.
SOURCE: KANSENSHOGAKU ZASSHI. JOURNAL OF THE JAPANESE ASSOCIATION FOR INFECTIOUS DISEASES, (1990 Jul) 64 (7) 861-5.
Journal code: IJR; 0236671. ISSN: 0387-5911.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199012
ENTRY DATE: Entered STN: 19910208
Last Updated on STN: 19970203
Entered Medline: 19901205

AB We devised a Citrate-Acetate (CA) medium for rapidly differentiating Shigella. The medium consisted of 3.0 g of sodium citrate, 2.0 g of sodium acetate, 0.2 g of **glucose**, 1.0 g of dipotassium phosphate, 1.0 g of mono **ammonium phosphat** , 0.2

g of **magnesium** sulfate, 5.0 g of sodium chloride, 0.08 g of brom thymol blue, 15.0 g of agar, and 1000 ml of distilled water. An evaluation was made of the CA medium, for the rapid differentiation of 23 Shigella strains, 129 Escherichia coli strains and 130 isolates, that formed colourless colonies suspected to be Shigella on SS agar plate, from feces of healthy people. The results obtained were as follows 1) On the CA medium, all Shigella strains did not grow and there was no change in colour. 2) Positive growth rates of E. coli strains after incubation for 24 hr at 37 degrees C on CA medium, sodium acetate medium (Acet) and Christensen citrate medium (C-Cit) were 96.0%, 95.2% and 28.0%, respectively. Therefore, the positive growth rate of E. coli strains after incubation for 24 hr on CA medium was significantly higher (p less than 0.01) than that on C-Cit medium. 3) Positive growth rates of isolates after incubation for 24 hr at 37 degrees C on CA medium, Acet medium and C-Cit medium were 95.4%, 83.1% and 71.5%, respectively. Therefore, the positive growth rates of isolates after incubation for 24 hr on CA medium was significantly higher (p less than 0.01) than that on Acet medium and C-Cit medium.(ABSTRACT TRUNCATED AT 250 WORDS)

L27 ANSWER 5 OF 11 JAPIO COPYRIGHT 2001 JPO
ACCESSION NUMBER: 1987-205781 JAPIO
TITLE: CULTURE OF BACTERIAL STRAIN BELONGING TO PSEUDOMONAS GENUS
INVENTOR: SHIMAZU MITSUNOBU; ENDO FUJIO; YUGAWA HIDEAKI
PATENT ASSIGNEE(S): RES ASSOC UTIL OF LIGHT OIL, JP (CO 486537)
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 62205781	A	19870910	Showa	(4) C12N001-20

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1986-44122 19860303
ORIGINAL: JP61044122 Showa
SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 478, Vol. 12, No. 59, P. 133 (19880223)
AN 1987-205781 JAPIO
AB PURPOSE: To obtain the titled bacterial strain having high enzymatic activity in high yield, by culturing a microbial strain belonging to Pseudomonas genus and containing amino acid racemase in a medium containing a specific carbon source.
CONSTITUTION: A culture medium is produced by compounding (A) one or more carbon sources selected from glycerol, ethanol, lactic acid, acetic acid, **citric** acid, fumaric acid, L-malic acid and tartaric acid (excluding **glucose**), (B) a nitrogen source

selected from **ammonium** salt, **NH3**, nitric acid salt and organic nitrogen such as glutamic acid, (C) an inorganic material such as **potassium phosphate**, **magnesium** sulfate, etc., and (D) a growth-promoting substance comprising yeast extract, polypeptone, etc. The pH of he medium is adjusted to 3-10 and a microbial strain belonging to Pseudomonas genus and containing amino acid racemase (e.g. Pseudomonas putida (IFO 12996)) is cultured in the above medium under aerobic condition at 10-45.degree.C.

L27 ANSWER 6 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1981-84190D [46] WPIDS
TITLE: Fermentative prepn. of uricase - using Torulopsis yeast as starting material.
DERWENT CLASS: B04 D16
PATENT ASSIGNEE(S): (KYOW) KYOWA HAKKO KOGYO KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 56124381	A	19810930	(198146)*		8
JP 62043669	B	19870916	(198740)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 56124381	A	JP 1980-26117	19800304

PRIORITY APPLN. INFO: JP 1980-26117 19800304
AN 1981-84190D [46] WPIDS
AB JP 56124381 A UPAB: 19930915
Uricase (I) is produced by incubating a yeast (II) belonging to Torulopsis in a culture medium, and collecting (I) from the medium. Pref. (II) is a new stock designated as Torulopsis uricoxidans. The culture medium pref. contains C source such as **glucose**, fructose, sucrose, molasses, ethanol, glycerol, sorbitol, **citric** acid, malic acid, etc.; N source such as **ammonium** chloride, **ammonium sulphate**, **ammonium phosphate**, urea, L-glutamic acid, etc.; and inorganic salt such as sodium chloride, potassium chloride, **potassium phosphate**, **magnesium** sulphate, etc.

(I) catalyses the hydrolysis of uric acid into allantoin, hydrogen peroxide and carbon dioxide. On the basis of this reaction, (I) is used for analysis of uric acid.

L27 ANSWER 7 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1981-27925D [16] WPIDS
TITLE: Cultivation of acid fast bacteria esp. tubercle bacillus - using meat extract or l-asparagine with **ammonium** salt as nitrogen source, improves yield.
DERWENT CLASS: B04 D16
PATENT ASSIGNEE(S): (MITK) MITSUI TOATSU CHEM INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 56018588	A	19810221	(198116)*		
JP 61043034	B	19860925	(198643)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 56018588	A	JP 1979-93649	19790725

PRIORITY APPLN. INFO: JP 1979-93649 19790725
AN 1981-27925D [16] WPIDS
AB JP 56018588 A UPAB: 19930915
Cultivation of acid fast bacteria, partic. tubercle bacillus (e.g. Mycobacterium tuberculosis, Mycobacterium bovis or Mycobacterium avium) or BCG, characterised by using a meat extract and **ammonia** or a salt thereof (e.g. **ammonium sulphate**, **ammonium** chloride or **ammonium phosphate**). Pref. the meat extract and **ammonia** or a salt thereof are used in amts. of 0.2-5 wt.% and 0.05-2 wt.%, respectively.

Carbon sources used include glycercn, **glucose**, pyruvic acid and **citric** acid. Inorganic salts include **sodium phosphate**, **potassium phosphate**, **ammonium** iron citrate, **magnesium** sulphate, **calcium** chloride, zinc sulphate or copper sulphate. Tween 80 (RTM), serum albumin or vitam are used if necessary. Cultivation is generally conducted at 30-40 deg.C and at a pH of 6-8.

The mycelia can be obtd. at remarkably higher yields when compared with the use of a meat extract alone or L-asparagine alone as a nitrogen source.

L27 ANSWER 8 OF 11 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 80119580 EMBASE
DOCUMENT NUMBER: 1980119580
TITLE: Biochemical gastroprotection from acute ulceration induced by aspirin and related drugs.
AUTHOR: Rainsford K.D.; Whitehouse M.W.
CORPORATE SOURCE: Biochem. Dept., Univ. Tasmania Med. Sch., Hobart, Australia
SOURCE: Biochemical Pharmacology, (1980) 29/9 (1281-1289). CODEN: BCPCA6
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
LANGUAGE: English

AB Adjuncts that serve as: (a) buffers to neutralize drug acidity, and/or (b) solubilizers of acidic drugs, or (c) certain nutrients (e.g. **glucose**, acetate), considerably reduced the gastric mucosal injury induced by orally administered aspirin (and other non-steroidal anti-inflammatory drugs) in stressed and starved rats. Gastroprotection against aspirin and related drugs was obtained by supplying the mucosa with **glucose** with intermediates or precursors of the tricarboxylic acid cycle (that may be absorbed directly from the gastric lumen). **Glucose** alone was not sufficiently gastroprotective. Gastroprotection with tricarboxylic acid cycle precursors given with **glucose** appears to be due to the effects of these nutrients in restoring ATP synthesis in the gastric mucosa. D-glutamate and D-aspartate were deaminated by homogenates prepared from saline-washed rat fundic mucosa (yielding .alpha.-oxo acids for the tricarboxylic acid cycle). These amino acids could be substituted for the L-forms in combination with **glucose** to yield gastroprotection from damage by aspirin. Studies in domestic pigs (a species with a pseudo-human stomach) established that acute and chronic oral administration of the aspirin+acetate+**glucose** combination (1:3:3 molar proportions) was less irritating to the gastric mucosa than aspirin alone. These results were confirmed in acute studies in monkeys. Sodium and potassium salts were superior to **calcium** and **ammonium** salts as the buffer component in these improved (i.e. less gastrotoxic) aspirin formulations tested in rats. Bicarbonate was not effective in preventing aspirin gastrotoxicity in stressed-sensitized rats, but is effective in non-stressed rats.

L27 ANSWER 9 OF 11 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 80169354 MEDLINE
DOCUMENT NUMBER: 80169354 PubMed ID: 94467
TITLE: Control of exocellular proteases in dermatophytes and especially Trichophyton rubrum.
AUTHOR: Meevootisom V; Niederpruem D J

SOURCE: SABOURAUDIA, (1979 Jun) 17 (2) 91-106.
Journal code: U5U; 0417341. ISSN: 0036-2174.
PUB. COUNTRY: SCOTLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198006
ENTRY DATE: Entered STN: 19900315
Last Updated on STN: 19990129
Entered Medline: 19800616

AB The production of proteases was investigated during growth of dermatophytic fungi with special emphasis on Trichophyton rubrum. Exogenous **glucose** suppressed elastase production in all dermatophytes examined. The production of protease active guinea pig hair in keratin-salts broth by Microsporum gypseum. Trichophyton mentagrophytes and T. rubrum was also suppressed by **glucose** . Various carbohydrates added to keratin-salts broth curtailed protease production by T. rubrum as did individual amino acids but **ammonium phosphate** did not. Enzyme activities against guinea pig hair were compared in twenty-one diverse clinical isolates of T. rubrum cultured in keratin-salts broth. Activity also occurred towards casein, bovine serum albumin, keratin, collagen and elastin after keratin-growth. Studies concerning the properties of enzyme activities in culture filtrates of T. rubrum after keratin-growth suggested that multiple proteases occurred here. Hydrolysis of guinea pig hair and elastin were optimal at pH7 while keratinase was most active at alkaline pH. Divalent cations stimulated protease(s). Ferric ion and mercuric ion stimulated keratinase but were inhibitory to guinea pig hair hydrolysis and elastase. **Chelating** agents inhibited elastase and the hydrolysis of guinea pig hair more severely than keratinase and all of those effects were reversed by excess **calcium**. A serine-protease inhibitor, phenylmethylsulfonylfluoride (PMSF), curtailed keratinase but was less inhibitory to elastase and guinea pig hair hydrolysis. Soybean trypsin inhibitor arrested each protease.

L27 ANSWER 10 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1977-04745Y [03] WPIDS
TITLE: Glutathione prepd. by culturing a Candida or Pichia yeast - in a medium contg. L-cystine.
DERWENT CLASS: B05 D16 E16
PATENT ASSIGNEE(S): (HITB) HITACHI CHEM CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

JP 51139685 A 19761201 (197703)*
JP 54000997 B 19790118 (197907)

PRIORITY APPLN. INFO: JP 1975-62741 19750526
AN 1977-04745Y [03] WPIDS
AB JP 51139685 A UPAB: 19930901
A yeast belonging to general Candida or Pichia is cultivated in a nutrient medium contg. L-cystine and glutathione is recovered from the cultured cells. The nutrient medium may contain carbon sources (e.g. **glucose**, fructose, sucrose, maltose, starch hydrolysate, glycerin, ethanol, acetic acid, **citric** acid, molasses, etc.), nitrogen sources (e.g. **ammonium sulphate**, **ammonium** chloride, **ammonium phosphate**, urea) and inorganic salts (e.g. **potassium phosphate**, **magnesium** sulphate, manganese sulphate, etc.)

Corn steep liquor, yeast extract, meat extract, soybean meal and peptone may also be used. L-cystine is added to enhance glutathione level in the yeast cells. The cultivation is carried out at 20-40 degrees C under aerobic conditions. The initial pH of the nutrient medium should be adjusted to 3-8.

L27 ANSWER 11 OF 11 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1966-33964F [00] WPIDS
TITLE: Xanthosine production.
DERWENT CLASS: B00
PATENT ASSIGNEE(S): (YAMS) YAMASA SHOYU KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 43020719	B		(196800)*		

PRIORITY APPLN. INFO: JP 1965- 19650729
AN 1966-33964F [00] WPIDS
AB JP 68020719 B UPAB: 19930831
Process for producing xanthosine which comprises culturing a guanine-requiring mutant of Bacillus subtilis in a hypoxanthine-contng. nutrient medium contng. a sugar carbon source (e.g. **glucose**, starch, sucrose, maltose, fructose, mannitol, lactose, **citric** acid, molasses, starch hydrolysate), inorganic or organic nitrogen source (e.g. **NH3**,

ammonium
chloride, **ammonium phosphate**, **ammonium**
sulphate, **ammonium**
nitrate, urea, peptone, casein hydrolysate, meat extract, corn steep liquor, yeast extract), inorganic salt (e.g. monopotassium phosphate, dipotassium phosphate, **magnesium** sulphate, KCl, CaCl2)
and a nutritive material essential for growth of the microorganism (guanine or a deriv. thereof (guanosine, guanylic acid) or a substance containing the same such as yeast extract, meat extract, soybean extract) under aerobic conditions and recovering the accumulated xanthosine from the fermentation broth.

The conc. of the carbon source may be from 5 to 10% and the amt. of guanine in the nutrient medium may be from 50 to 500 mg./l. The amt. of hypoxanthine added to the nutrient medium is pref. 2 to 10 g./l. The pH is controlled within the range 5.0 to 8.5.

Xanthosine is a physiologically important cmpd. and, when phosphorylated, yields 5'-xanthylic acid which is a seasoning material.

FILE 'CAPLUS' ENTERED AT 09:52:29 ON 06 JUN 2001

L1	2	SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOSE/CN
L6	69	SEA FILE=REGISTRY ABB=ON PLU=ON POTASSIUM PHOSPHATE ?/CN
L7	1	SEA FILE=REGISTRY ABB=ON PLU=ON CALCIUM/CN
L8	1	SEA FILE=REGISTRY ABB=ON PLU=ON MAGNESIUM/CN
L9	2	SEA FILE=REGISTRY ABB=ON PLU=ON L7 OR L8
L14	73	SEA FILE=REGISTRY ABB=ON PLU=ON SODIUM PHOSPHATE ?/CN
L15	23	SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM PHOSPHATE ?/CN
L16	165	SEA FILE=REGISTRY ABB=ON PLU=ON L6 OR L14 OR L15
L19	2	SEA FILE=REGISTRY ABB=ON PLU=ON (EDTA/CN OR "EDTA (3-)"/CN OR "EDTA (CHELATING AGENT)"/CN)
L20	1	SEA FILE=REGISTRY ABB=ON PLU=ON "CITRIC ACID"/CN
L21	3	SEA FILE=REGISTRY ABB=ON PLU=ON L19 OR L20
L28	2413	SEA FILE=CAPLUS ABB=ON PLU=ON (L1 OR GLUCOSE OR METABOL?(3A)CARBON) AND (L16 OR INORGAN?(3A)NITROGEN OR (K# OR NA# OR SODIUM OR NH# OR AMMON? OR POTASSIUM)(W)(PHOSPHATE OR PO###) OR K!PO### OR NA!PO### OR NH!PO###)
L29	2322	SEA FILE=CAPLUS ABB=ON PLU=ON L28 AND (L16 OR PHOSPHATE OR PO#### OR K!PO### OR NA!PO### OR NH!PO###)
L30	571	SEA FILE=CAPLUS ABB=ON PLU=ON L29 AND (L9 OR METAL OR CALCIUM OR MAGNESIUM)
L31	132	SEA FILE=CAPLUS ABB=ON PLU=ON L30 AND (L21 OR EDTA OR ETHYLENEDINITR? OR ETHYLENE(W)(DINITR? OR DI NITR?) OR

ETHYLENEDI NITR? OR CITRIC OR CHELAT? OR EDETIC)
L32 9 SEA FILE=CAPLUS ABB=ON PLU=ON L31 AND FERMENT?

=> s l32 not l25
L33 1 L32 NOT L25

L33 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:512807 CAPLUS
DOCUMENT NUMBER: 115:112807
TITLE: Optimization of interferon manufacture with recombinant Escherichia coli
INVENTOR(S): Riesenberg, Dieter; Menzel, Klaus Dieter; Schulz, Volkmar; Guenther, Jutta; Gira, Georg; Knorre, Wolfgang A.
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Fed. Rep. Ger.
SOURCE: Ger. (East), 10 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 290215	A5	19910523	DD 1988-318370	19880728

AB A 6-phase **fermn**. process for optimal interferon manuf. with recombinant E. coli is described. In phase I a special **glucose**-minimal medium is inoculated directly with thawed transformants. In phase II, growth of the bacteria continues until a predetd. **pO2** value, and, in phase III, growth continues until the initial **glucose** is exhausted while maintaining the predetd. **pO2**. The growth rate is decreased to the prodn. growth rate in phase IV by adding **glucose** such that the **glucose** is rate limiting. In phase V, interferon is produced at this minimal growth rate until phase VI, the termination of the **fermn**. Using this technique, E. coli TG1/pBB210 was grown to 55.3 g/L. This biomass produced 2 .times. 1010 IU interferon-.alpha.1/L.

IT **50-99-7**, **Glucose**, biological studies
60-00-4, **EDTA**, biological studies **77-92-9**
, **Citric** acid, biological studies **7778-77-0**
7783-28-0
RL: BIOL (Biological study)
(minimal medium contg., interferon manuf. with Escherichia coli in)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,

JICST-EPLUS, JAPIO' ENTERED AT 09:58:27 ON 06 JUN 2001)
L34 3 S L32
L35 0 S L34 NOT L26

(FILE 'MEDLINE' ENTERED AT 10:03:08 ON 06 JUN 2001)
L36 79823 SEA FILE=MEDLINE ABB=ON PLU=ON GLUCOSE/CT
L37 35500 SEA FILE=MEDLINE ABB=ON PLU=ON PHOSPHATES/CT
L38 2064 SEA FILE=MEDLINE ABB=ON PLU=ON L36 AND L37
L39 8970 SEA FILE=MEDLINE ABB=ON PLU=ON "CHELATING AGENTS"/CT
L40 5 SEA FILE=MEDLINE ABB=ON PLU=ON L38 AND L39

L40 ANSWER 1 OF 5 MEDLINE
AN 2000423546 MEDLINE
TI Effects of handling and storage of blood on the stability of hepatitis C virus RNA: implications for NAT testing in transfusion practice.
AU Grant P R; Kitchen A; Barbara J A; Hewitt P; Sims C M; Garson J A; Tedder R S
SO VOX SANGUINIS, (2000) 78 (3) 137-42.
Journal code: XLI; 0413606. ISSN: 0042-9007.
AB BACKGROUND AND OBJECTIVES: To determine the stability of hepatitis C virus (HCV) RNA during transport and storage of blood samples from donors, prior to screening for HCV by nucleic acid amplification technology. MATERIALS AND METHODS: Various blood and plasma sample types were stored for up to 120 h at different temperatures and the HCV RNA level was measured using an in house quantitative reverse transcription-polymerase chain reaction. RESULTS: No decline in HCV RNA level was observed after 72 h of storage of whole blood at 4 degrees C in EDTA tubes (Greiner) and Plasma Preparation Tubes (PPT; Becton Dickinson), while insignificant declines of 0.2 log10 and 0. 25 log10 occurred at 25 degrees C after 72 h in the EDTA tubes and PPT tubes, respectively. When whole blood was stored with mixed anticoagulants CPDA-1 and EDTA for up to 120 h, no decline in HCV RNA level was observed at 4 degrees C and 25 degrees C, while a significant decline of 0.37 log10 occurred at 37 degrees C after 120 h. The temperature during transportation was investigated with a 12-hour period at 25 degrees C and 37 degrees C before storage at 4 degrees C for 108 h. Neither temperature resulted in any loss of HCV RNA in comparison with 120 h of storage at 4 degrees C. CONCLUSION: Whole blood anticoagulated with EDTA or CPDA-1/EDTA may be stored at up to 25 degrees C (room temperature) for up to 5 days without any significant loss in plasma HCV RNA level.

L40 ANSWER 2 OF 5 MEDLINE
AN 97138570 MEDLINE
TI Intracellular chelation of calcium prevents cell damage following severe hypoxia in the rat cerebral cortex as studied by NMR spectroscopy ex vivo.

AU Grohn O; Kauppinen R
SO CELL CALCIUM, (1996 Dec) 20 (6) 509-14.
Journal code: CQE; 8006226. ISSN: 0143-4160.
AB Nuclear magnetic resonance (NMR) spectroscopy was used to quantify metabolic recovery (by 31P NMR) and neuronal damage (by 1H NMR) following aglycaemic hypoxia in superfused cortical brain slices. Slices were incubated either in the absence or presence of a cell-permeant Ca2+ chelator, 1,2-bis-(2-amino-phenoxy)ethane-N,N,N',N'-tetra-acetic acid acetoxy ester (BAPTA-AM) before exposure to hypoxia in the presence or absence of 1.2 mM Ca2+. Hypoxia in the presence of Ca2+ resulted in metabolic damage as well as time-dependent reduction of a neuronal metabolite, N-acetyl aspartate. The recovery was improved only temporarily by BAPTA under these conditions. Hypoxia in the absence of external Ca2+ did not cause any detectable signs of damage in BAPTA-loaded slices. These data show that combined inhibition of influx and intracellular chelation of Ca2+ render the brain cortex tolerable to severe energy failure.

L40 ANSWER 3 OF 5 MEDLINE
AN 92137761 MEDLINE
TI Does hydrogen peroxide exist "free" in biological systems?.
AU Schubert J; Wilmer J W
SO FREE RADICAL BIOLOGY AND MEDICINE, (1991) 11 (6) 545-55.
Journal code: FRE; 8709159. ISSN: 0891-5849.
AB Hydrogen peroxide (H2O2) can diffuse far from the site of production to intracellular locations where biological effects may be greater. The diffusion range is extended by H2O2 carriers formed spontaneously by hydrogen bonding with monomeric and polymeric compounds, including amino and dicarboxylic acids, peptides, proteins, nucleic acid bases, and nucleosides. Hydrogen peroxide adducts (HPAs) are readily synthesized, e.g., crystalline histidine (His)-H2O2 adducts. An equilibrium exists between an adduct-forming compound and H2O2. The detection and relative stabilities of HPAs are measured by the degree of decomposition of H2O2 as influenced by test compounds in buffered solution competing with glucose or fructose for H2O2. The HPAs delay decomposition of H2O2 up to several hundredfold. The overall charge on an HPA, i.e., its ability to penetrate cell membranes, influences the cytotoxic and clastogenic effects of H2O2. Growth inhibition of Salmonella typhimurium LT2 by H2O2 is enhanced by neutral HPAs but decreased by anionic HPAs. Addition of catalase 1, 10, or 30 min after inoculation of S. typhimurium LT2 reduces or nearly eliminates partial growth inhibition by H2O2, but a neutral HPA, especially His-H2O2, transported H2O2 into the cells within 1 min, and in about 10 min completely inhibited growth. The stability of HPAs decreases with increasing pH or increasing temperature, while added Fe(II) in the presence and absence of EDTA accelerates H2O2 and HPA

decomposition. Calculations indicate H2O2 hydrogen bonds with nucleic acid-base pairs with no apparent bond strain and energy stabilization comparable to normal hydrogen bonding.

L40 ANSWER 4 OF 5 MEDLINE
AN 73220258 MEDLINE
TI Ouabain binding to the sodium pump in plasma membranes isolated from ox brains.
AU Whittam R; Chipperfield A R
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1973 May 25) 307 (3) 563-77.
Journal code: A0W; 0217513. ISSN: 0006-3002.

L40 ANSWER 5 OF 5 MEDLINE
AN 71163665 MEDLINE
TI Activators of yeast hexokinase.
AU Kosow D P; Rose I A
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1971 Apr 25) 246 (8) 2618-25.
Journal code: HIV; 2985121R. ISSN: 0021-9258.

=> fil hom
FILE 'HOME' ENTERED AT 10:04:27 ON 06 JUN 2001